5

## CLAIMS

We claim:

- 1. A composition comprising a substrate comprising an array of capture probes, at least one of which comprises a recombinase.
- A composition according to claim 1 wherein a plurality of said probes are coated with a recombinase.
  - 3. A composition according to claim 1 or 2 wherein said recombinase is a RecA recombinase.
  - 4. A composition according to claim 3 wherein said RecA recombinase is E. coli RecA.
  - 5. A composition according to claim 3 wherein said RecA recombinase is RecA peptide.
  - 6. A composition according to claim 1 wherein said recombinase is a Rad51 recombinase.
  - A composition according to claim 1 wherein said capture probes are covalently attached to said substrate.
  - 8. A composition according to claim 1 wherein said capture probes comprise DNA.
  - 9. A method of detecting the presence of a target sequence in a sample comprising:
    - a) providing a substrate comprising an array of capture probes;
    - b) contacting said target sequence with said array, wherein either said capture probes or said target sequence is coated with a recombinase, to form an assay complex; and
    - c) detecting the presence of said assay complex as an indication of the presence of said target sequence.
- 20 10. A method according to claim 9 wherein said recombinase is a recA recombinase.
  - 11. A method according to claim 10 wherein said recA recombinase is E. coli recA.
  - 12. A method according to claim 9 wherein said capture probes comprise said recombinase.
  - 13. A method according to claim 9 wherein said target sequence comprises said recombinase.

- 14. A method according to claim 13 further comprising coating said target sequence with said recombinase.
- 15. A method according to claim 9 wherein said target sequence is RNA.
- 16. A method according to claim 15 wherein said RNA is coated with a recombinase.